

Title (en)

WINDOW ASSEMBLY HAVING A TRANSPARENT LAYER WITH A SLOT FOR A WIRE ANTENNA ELEMENT

Title (de)

FENSTERANORDNUNG MIT EINER TRANSPARENTEN SCHICHT MIT EINEM STECKPLATZ FÜR EIN DRAHTANTENNENELEMENT

Title (fr)

ENSEMble FENÊTRE AYANT UNE COUCHE TRANSPARENTE AVEC UNE FENTE POUR UN ÉLÉMENT D'ANTENNE FILAIRE

Publication

**EP 2649675 B1 20200722 (EN)**

Application

**EP 11810715 A 20111209**

Priority

- US 42137610 P 20101209
- US 42138110 P 20101209
- US 201061427450 P 20101227
- US 42138610 P 20101209
- US 42137410 P 20101209
- US 2011064147 W 20111209

Abstract (en)

[origin: WO2012078972A1] A window assembly for a vehicle has a transparent layer which includes a metal compound such that the transparent layer is electrically conductive. The transparent layer defines an area covering the window assembly. An opening is defined within and surrounded by the area. The window assembly includes an antenna element made of wire and/or a transparent coating or film disposed within the opening. The antenna element is electrically disconnected from the transparent layer such that the antenna element operates independent of the transparent layer. A feeding element is coupled to the antenna element for energizing the antenna element. The feeding element is electrically disconnected from the transparent layer such that the feeding element energizes the antenna element independent of the transparent layer.

IPC 8 full level

**H01Q 1/12** (2006.01)

CPC (source: EP US)

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US 2014015716 A1 20140116; US 2014104122 A1 20140417; US 9755299 B2 20170905; US 9837707 B2 20171205;  
WO 2012078979 A1 20120614; WO 2012078986 A1 20120614; WO 2012079002 A1 20120614; WO 2012079002 A8 20120802;  
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EP 11802833 A 20111209; EP 11802834 A 20111209; EP 11808981 A 20111209; EP 11808984 A 20111209; EP 11808986 A 20111209;  
EP 11808987 A 20111209; EP 11810715 A 20111209; US 2011064147 W 20111209; US 2011064164 W 20111209;  
US 2011064193 W 20111209; US 2011064239 W 20111209; US 2011064252 W 20111209; US 2011064260 W 20111209;  
US 2011064268 W 20111209; US 201113992603 A 20111209; US 201113992611 A 20111209